

**PHONOLOGICAL AWARENESS AND EXPLICIT INSTRUCTION  
IN AN EFL CLASSROOM**

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## **Introduction**

Phonemic awareness is a central issue in current first language (L1) reading research. To achieve reading mastery in an alphabetic script, children must not only develop awareness that words can be segmented into sequences of phonemes, but also acquire the skills to analyze the internal structure of the word to identify its phonemic constituents (e.g., Blachman, 1991). Recent studies consistently demonstrate that phonemic awareness is a powerful predictor of reading success among children learning to read English as their L1 (e.g., Juel et al., 1986; Bryant et al., 1990). Other recent studies, moreover, suggest that phonemic awareness and reading have a reciprocal relationship which mutually enhances their development (Perfetti et al., 1987).

Recent studies with L1 dominant Spanish–English bilingual first graders, in fact, demonstrates that phonemic awareness transfers crosslinguistically from alphabetic L1 to second language (L2) and, importantly, L1 phonemic awareness does facilitate L2 decoding performance (Durgunoglu et al., 1993; Cisero & Rogers, 1995). Consequently, it is argued that L2 learners transfer the phonological and orthographic knowledge and rules from their L1 to their L2 in early literacy stages. This means, in the case of Spanish speaking readers who are ESL learners, that when beginning to read in English their word reading decoding skills are affected by the way they read Spanish words. Because students suffer a cross linguistic effect in the area of phonology, their decoding process can be negatively affected when having to read a non high frequency word.

The present study reports an explicit phonological and phonemic instruction in English as a foreign language (EFL) classroom in Uruguay, and its effects on English word decoding level. The goal of the study is to determine whether the inclusion of this teaching strategy in a third grade Spanish-speaking EFL classroom contributes or not in the word decoding level of the learners, whose L2 reading performance might be influenced by the transfer of phonological awareness strategies from their L1.

## **Literature Review**

### *The role of phonology in learning to read*

Reading has universal properties that can be seen across the world's writing systems. The most important one is that writing systems encode spoken language, which has consequences for reading not only in a first language (L1), but in a second language (L2) too. The reading process is driven by the visual recognition of individual letters in familiar ordered sequence and is critically supported by the translation of those strings of letters into their phonological correspondence (Perfetti, 2003).

Learning to read implies learning to decode the spoken language encoded in the writing system, and not just the encoded meaning. It means that learning how to read must involve learning how one's writing system goes about encoding one's spoken language (Perfetti, 2003). Learning to read means more than learning to get meaning from the text, this is just one of the functions of reading, but it is not reading itself. Decoding, understood as the mental process through which the individual assigns each written letter a mental sound (phoneme) associated with it, is a required process when learning to read in any language. Because of that, learning to read does not only occur as a natural process, but it is a learned one which involves the development of several skills.

Over the last twenty years, there has been a great emphasis on identifying, assessing, and teaching native speakers of English the underlying cognitive skills related to reading (Williams, 1980). Metalinguistic insights are applied in all language domains such as phonology, syntax, semantics, and pragmatics. They involve the ability not just to use language, but to think about it, play with it, talk about it, analyze its components and make judgments about acceptable versus incorrect forms (National Research Council, 2000).

Decoding, the central task of the beginning reader of any language based on the alphabetic code such as English and Spanish, involves phonological awareness (PA). PA is considered a very important aspect of metalinguistic development and a predictor element of success in the process of access to the mental lexicon from written symbols for monolingual readers (Gillon, 2004).

Phonological awareness refers to the child's ability to analyze the internal phonological structure of spoken words. It involves the ability to isolate the phonemes that make up a word and the ability to blend individual phonemes into whole words. This term refers to a general appreciation of the sounds of speech as distinct from their meaning. Phonological awareness is the ability to consciously attend to the sounds of language as distinct from its meaning to process oral and written language (Gillon, 2004).

PA and in particular phonemic awareness are important elements to learn an alphabetic language such as English and Spanish. Understanding the basic alphabetic principle requires awareness that spoken language can be analyzed into strings of separable words, words into sequences of syllables, and syllables into individual

phonemes. Spoken words can be phonologically subdivided at several different levels of analysis. These include the syllable (e.g. in the word protect /pro/and / tect/); the onset and rhyme within the syllable (/pr/ and /o/, and /t/ and /ect/), and the individual phonemes ( /p//r//o//t//e//c//t/).

Literacy research conducted with monolinguals has converged to demonstrate that phonological processing is a crucial precursor skill to word reading (Wagner, Torgesen & Rashotte, 1999). Globally one's phonological processing abilities have an impact on reading acquisition and comprehension (Stanovich and Siegel, 1994). For children learning to read in their L1, phonological awareness skills have been shown to be highly correlated with initial reading skills such as word recognition, spelling and decoding (Adams, 1990). Across many different monolingual populations (e.g., English, French, German, Italian, Spanish), high levels of phonological awareness have been shown to accompany high levels of word recognition and spelling (Caravolas & Bruck, 1993; Cossu et al.1988, Durgunoglu, 1998; Durgunoglu & Oney, 1999) Moreover, lower phonological processing skills have been shown to accompany dyslexia in many different monolingual populations, although the effect is smaller in orthographies that have more systematic grapheme-phoneme correspondences (Wimmer et al., 2000).

### *Learning to read in L2*

Native speaker children of any language spend many years perfecting the sorting process of the spoken language into meaningful chunks. However, in this process of sorting the language they have different difficulties. Some difficulties stem from low



levels of linguistic proficiency, while there are also more general reading/learning difficulties (Geva, 2000).

In a similar way, language learners of a new language experience difficulties when learning to sort out the unfamiliar sounds into pieces that make sense: phrases or sentences, words, syllables, and even phonemes (the smallest sound segments). In the last decade, several studies have shown that English language learners (ELLs) were overrepresented in special education populations, implying that their language difficulties may have been misinterpreted as a more general learning problem (Cummins, 1984).

Researchers studying native English-speaking students who were having trouble learning a foreign language found that these students have problems similar to those of poor readers and spellers in that they do not perceive and manipulate the sound system and its corresponding written code effectively. In other words, foreign language learners when learning to read in a L2 have weak phonological skills as poor readers and spellers have in their own L1.

Teachers and reading experts have known for years that PA skills are often difficult to learn and that such difficulties with the sorting process are directly connected to the reading and spelling problems of many students (Williams, 1980). There is a good deal of evidence that proficiency in these skills is important in the initial reading tasks. Chall, Roswell and Blumenthal (1963) found that blending ability in first grade is highly related to later reading achievement, and the ability to blend phonemes into nonsense syllables is related to silent reading (Balmuth, 1972).

Besides the biological difficulties that may interfere in the normal development of PA such as audio difficulties to differentiate and produce sounds, L2 learners may be affected by cross linguistic, cultural, and pedagogic factors.

PA is a reading skill that learners transfer from their L1 knowledge to their L2. Studies of cross language effects in the domain of phonology provide evidence for L1 influences on L2 acquisition. In other words, it is argued that L2 learners transfer the phonological and orthographic knowledge and rules from their L1 to their L2 in early literacy stages. For example, Kramer & Schell (1982) examined cross-linguistic effects in the auditory discrimination of first through third grade Spanish-English bilinguals. They concluded that English language learners exhibit developmental patterns in sound discrimination and production that were not like those of the target language, but reflected characteristics of the L1. Kramer & Schell (1982) found that these children had difficulty discriminating contrasts in English that are not used in Spanish (e.g. v-b, ch-sh, s-sp). In a follow up study, Kramer (1983) found out that when students received four weeks training targeting the difficulty to discriminate contrasts, students improved their discrimination performance in comparison with that of students who did not receive such training.

Holm et al (1999) also reported the effect of cross linguistic transfer, but in their study, they examined the phonological productions of Urdu and Punjabi children learning English as L2 in England. These children exhibited production patterns that could be considered as impairment in the language, if L1 influences were not considered. These findings as well as others from four different studies (Abu-Rabia, 1997; Chitiri & Willson,

1997; Da Fantoura & Siegel, 1995; Gholamanin & Geva, 1999) suggest that across a wide range of ages, word reading skills acquired in one language transfer to the other.

Studies with Spanish speaking ESL learners ( K-3 ) demonstrate that PA transfers cross-linguistically from Spanish (L1) to English (L2) (Durgunoglu, 1993; Cisero & Royer, 1995; Quiroga, 2001). This means, in the case of Spanish speaking readers who are ESL learners, that when beginning to read in English their word reading decoding skills are affected by the way they read Spanish words. Because students suffer a cross linguistic effect in the area of phonology, their decoding process is negatively affected (Gildersleeve and Kester, 2008).

In word recognition and spelling performance, instances of negative transfer occur quite often, and that is one of the reasons why educators worry about the students confusing their two languages. In a study of writing samples collected from upper elementary Spanish-English students, Durgunoglu, et al.( 2002) found that a very common strategy in English spellings was to use the spelling-sound correspondences systematically and spell the words as they were heard, hence transferring a strategy that is quite effective for the more transparent Spanish orthography. To give examples, the words “read, need, witch” were spelled as “rid, nid, and wich.” Because the students tended to spell the words as they heard them, they omitted the silent letters in both English and Spanish words, errors such as “ago” for “hago”, “asemos” for “hacemos”, and “aser” for “hacer”, were quite common. The students also used common English consonant clusters when spelling Spanish words such as “scuela” for “escuela”, “studios” for “studios”, and “different” for “different”. They also interchanged sounds between

English and Spanish, for example i and y. In Spanish and English spellings, the phoneme/i/, which is sometimes spelled as y, was interchanged with i or e. For example, "happily" was spelled as "hapali" and "lady" as "late".

However, at a global level, in the aforementioned study as well as in others, there are positive correlations among word recognition and spelling scores both within and across languages (Durgunoglu, 1998). Even with two languages with different complexities of grapheme-phoneme correspondences--such as the more transparent, voweled form of Hebrew and opaque English--accuracy and speed of reading words in isolation are similar (Geva, Wade-Woolley, & Shany, 1997).

Furthermore, there are studies which support the transfer hypothesis and show that word recognition and spelling follow very similar developmental paths for English as a second language and English as first language learners. For example, cognitive and linguistic profiles of average and at-risk readers were similar for both ESL students who had a variety of Asian languages as their home language and EFL students (Geva and Siegel, 2000). For both groups, phonological awareness and rapid naming were predictors of word recognition, even after nonverbal intelligence and receptive vocabulary were entered into the equation. Likewise, for Portuguese-English LLs, phonological processing was the source of weakness for poorer readers across languages (DaFontoura & Siegel, 1995).

### *Orthographic description of Spanish and English*

To understand the orthographic differences between languages is important, because it is consider a factor connected with the cross-languages reading skills transfer.

Visual and auditory linguistic signals are perceived by an individual according to the patterns of his language. In speech communication, many physical sounds are perceived as the same linguistic units, and we tend to be unconscious of allophonic variation. On the other hand, written language starts out with fewer physical signals- the 26 letters of the alphabet – and these must serve to represent all the phonemes of a language. English has thirty eight phonemes; thus it is obvious that some letters of the alphabet will have double or triple duty (Nash, 1977). The heaviest burden falls on the vowel letters *a, e, i, o, u*, which must represent fourteen vowel phonemes. That is one reason why English vowel letters have such variant pronunciation: i.e. hat /æ/; car /a/; gate /ey/.

According to Ziegler & Goswami, (2005) differences in the rate of acquiring phoneme awareness reflect orthography consistency. In languages with a 1:1 correspondence between letter and sound reading, Spanish for example, learning about phonemes via learning to read is a relatively straightforward task. However, in languages like English and French, where there is a one-to- many correspondence between letters and phonemes learning about the phonemes by learning to read is not that easy, because the mapping keeps changing.

As shown in these studies' findings, students have revealed a heavier reliance on the phonology of the language than in the visual strategy in processing the L2 when the L1 orthography is transparent. This means, in the situation of Spanish speakers, who already know the alphabetic correspondence between phonemes and letters in their L1 that they make mistakes decoding English words because its spelling does not match the phonemic patterns they know.

Durgunoglu et al (1998) study suggests that if LLs have certain strengths in their L1, and those strengths are known to transfer across languages, then one can expect that the LLs will develop those proficiencies in their L2 as their L2 proficiency develops. For example, young children who have some level of phonological awareness in their L1 are more likely to show that awareness in their developing L2 as well. In this instance, as their vocabulary and familiarity with the sounds of their new language increases, we can expect them to show phonological awareness in their L2 as well, even though they may be experiencing some delays at the moment. For these children, tailoring the L2 instruction to build on their existing L1 strengths also may be helpful.

In contrast, children with low levels of certain metacognitive/ metalinguistic awareness in their home language need to be observed further. One possibility is that they may not have a strong enough grasp of their L1, possibly because of low home or school support. In that case, instructing in L2, and periodically assessing their language and literacy development is needed. However, if children have had reasonable exposure and instruction in their L1 and still have not developed certain metacognitive/metalinguistic skills, then we can suspect cognitive/ developmental deficits that are likely to affect both L1 and L2 literacy development.

### *Phonological awareness instruction*

As noted earlier, PA refers to the child's ability to detect and manipulate component sounds in words, and is the key predictor of literacy acquisition across languages. The development of phoneme awareness (awareness of small units) relies on

the child's explicit or conscious control over the linguistic structures used for producing and comprehending speech. This metalinguistic control has been described by Gombert (1992) and Torgesen and Mathes (2000) as developing in response to external factors such as direct teaching.

In order to help children who encounter difficulty in developing the ability to intuitively perceive redundant patterns and connections between speech and print, explicit instruction in phonemic awareness and alphabetic coding skills is likely to be critical. For native speakers of English it has been proven that they need to be instructed in all the phonemes that their own language is made of and teachers and specialists have developed different programs to achieve that. However, I hypothesize that ESL learners, who have been instructed in their L1 and are aware of the phonological features of their L1, do not need to be instructed in all the phonological system features in the L2 when both languages share the same graphemes. The reason for this hypothesis is as follow. The transfer hypothesis suggests that phonological awareness is a skill that language learners transfer from one language to the other. Because of that, I believe Spanish speaking EFL learners have to be instructed in those phonemes that do not exist in their first language or that can generate confusion when transferring their knowledge from L1 to L2 because they share orthographic symbols but have different phonological patterns.

A clear example of difficulty for Spanish-speaking ESL learners is the set of vowels, because the spelling is not transparent. Students need to be instructed in the vowels that do not exist in Spanish, and also in the most frequent orthographic combinations in the L2 that exist in L1, but represent different phonemes. Research did

with native speakers of English support implicit instruction, by reading words and texts and by listening and associating letter patterns with sounds as an effective strategy to develop PA in poor readers (Gillon, 2004).

### *Phonological awareness instruction in L1*

Literacy is a complex process that involves the development of various simultaneous skills or abilities. As discussed above, phonemic awareness, phonics, oral reading fluency, reading comprehension, vocabulary, and writing and spelling are considered the most important literacy components. The National Reading Panel in a revision of 400 studies done with native speakers found that instruction in explicit, systematic phonics assists English-speaking students in the development of their literacy skills, and that teaching children how to use letter-sound relationships to decode words improved reading achievement (National Research Panel, 2000). Furthermore, the study revealed that the content of instruction appears to be more important than methodological differences in teaching (August, 2006), suggesting in 2000 that elementary school English teachers should include activities that promote phonological awareness in their curriculum.

Byrne and Fielding-Barnsley (1991) conducted one of the studies reporting the effectiveness of explicit training with native speakers. They examined the effects of phoneme instruction for preschool children given the same general instruction with differing emphasis on phonological activities. The control group experienced storybook



reading and activities involving posters and worksheets. The children in the phoneme group experienced a similar intervention, but the stories, posters, and worksheets focused on a specific phoneme in either the initial or final position. Results found that the experimental group showed larger gains on the post-test than the control group and those improvements generalized to sounds not included in the instructional program.

Byrne and Fielding-Barnsley (1995) extended their prior study by assessing the children that remained in the district from each group at the end of first grade and the end of second grade. A primary finding from this study was the increased knowledge of decoding shown by the children from the experimental group during the pseudo-words reading tasks. This is significant as there is a correlation between pseudo-word reading and irregular word reading (Freebody & Byrne, 1988).

Torgesen et al (1999) also conducted a study of inside-out literacy skills, contrasting three different interventions with children exhibiting early literacy deficits. The variables they controlled were the degree of phonological awareness instruction and coordination with the natural classroom environment. Participants were assessed on measures testing letter naming, phoneme elision, serial naming of numbers, and vocabulary throughout the intervention. The children were assigned to one of four conditions: (1) no-treatment control, (2) regular classroom support (RCS), (3) embedded phonics (EP), and (4) phonological awareness plus synthetic phonics (PASP). The PASP condition spent the majority of time on phonemic decoding whereas the EP condition split the time spent on those two activities almost evenly. In the RCS condition, the one-

on-one tutoring was closely coordinated to the activities already existing in the classroom.

Results showed that the children participating in the PASP condition had significantly better skills in phonological awareness, phonemic decoding, and untimed word reading than the children in the EP condition. Only the PASP condition produced reliable results in word level reading skills. The growth produced by the RCS and EP conditions was not reliably different from the no-treatment group. One explanation for this finding is that one-on-one tutoring is not sufficient to produce reliable results in children with serious reading disabilities unless it included intensive explicit instruction in phonemic awareness and decoding skills. There was no significant difference between the treatment groups on measures of comprehension, which the authors regard as the most important outcome of reading instruction.

These two studies reinforce the importance of creating early literacy interventions that incorporate numerous inside-out skills including word level and comprehension related skills (Torgesen et al., 1999) to help children with reading problems. These children may profit more from phonological awareness training than children who develop reading abilities in a normal way.

Phonological awareness programs differ widely in terms of content, duration, and timing. Differences between training programs may be related to differential effects on reading. Ehri (1979) suggested that children may learn much more about the phonetic structure of words when they learn how to interpret spellings as maps. This means that programs combining phonological training with written letters or words may be more

effective than purely phonetic or aural programs, since a distinct visual symbol for each phoneme may anchor the phonemes perceptually (Adams, Treiman, & Pressley, 1998).

Secondly, phonological trainings which start early may be more effective than those that start later in childhood. Some programs are considered complementary to the regular reading instruction and start at a rather late age, whereas preventive programs are designed to start prior to formal reading instruction (Gillon, 2004). Starting early with phonological training may prepare children to get involved in reading instruction more effectively.

One type of phonological awareness program assumes that metalinguistic games making children sensitive of phonemes in words enable children to grasp the alphabetic principle as they learn to read. The classic study in this category is a training study built on strictly oral language activities. For example, Lundberg et al. (1988) developed a series of games to make children sensitive to phonemes in words. More than half of the training period is drilled with listening games, rhyming, and segmentation of sentences and words into syllables. After a stage in which children rhyme, segment sentences, or segment words into syllables, phonemes are introduced. In the fourth month of training, segmentation and blending of word-initial phonemes are introduced, and then word-final and word-internal phonemes are introduced. However, Lundberg's programs and related training programs do not provide children with an explicit conceptual connection between the phonological skill and decoding or reading. At no time during the training lessons are participants exposed to letters or words in print.

Children may be better able to decode an unfamiliar word in print if the training is not purely phonetic, but also includes letter-sound relations. If the acquisition of the

alphabetic principle rests on the twin foundations of phonological awareness and letter knowledge, supplementing phonological instruction with letter training may be more effective in learning to read.

In the program Sound Foundations (Byrne & Fielding-Barnsley, 1991), the lessons start with the teacher drawing attention to a particular sound and how it is made by the mouth. Each child in turn is invited to find something on a poster displaying the day's sound in beginning, middle, or end position. Further chances to learn the concept of phoneme identity come with worksheets. Throughout the lessons, the relevant letter is displayed, and the children are told that it "says" the phoneme.

Some programs not only practice segmentation and letter-sound relation, but are designed to make the role of segmentation in an alphabetic system explicit. The Say-It-and-Move-It activity (Ball & Blachman, 1991) implies that children represent phonemes by moving disks from the top half of a standard letter-sized card to the bottom half. They are instructed to say each phoneme in the item and simultaneously move a disk to represent each phoneme. The lessons systematically progress from single-phoneme items to two phoneme items to three-phoneme items. To establish further the link between the sound-segments of speech and the letters of the alphabet, letters are written on individual tiles. The maximum number of letter tiles used per session is two, and each item to be segmented contains only one of the letter tiles. This design is inspired by the ideas of Elkonin (1973), who was the first to make the role of segmentation in an alphabetic system explicit by using a diagram of the sound structure of the word and putting a disk in the diagram for each heard phoneme.

Bryant and Bradley (1985) suggested that the integration of training in phonological skills with letter-sound training (or more broadly with phonologically based reading instruction) may be particularly effective in improving reading skills. One training program applied by Bradley and Bryant (1983) not only teaches that “cat” and “cup” are words that start with the same sound but also teaches that both words start with the same alphabetic letter. The exercises involve relating sounds in words to their spelling patterns, in combination with sound categorization training. Children are taught about two categories—the sounds and the visual patterns that the different words share with each other—at the same time. The teacher in Bradley and Bryant's (1983) program, for example, uses plastic letters to demonstrate in a striking way how words that have sounds in common also often have clusters of letters in common. When the teacher changes the word “cat” to “hat”, she leaves the letters that represent the rhyming sound “-at” intact and simply subtracts “c” and replaces it with “h.” The element that changes represents the difference between the two words. Bradley and Bryant believed that this method may work well, because children who are just beginning to learn to read and write tend to treat what they learn about a written word's sounds and what they learn about its visual appearance as two separate things. The plastic letters may help to associate these two categories with each other.

Other programs connect the phonological processing directly to reading. Vandervelden and Siegel (1997), for example, started with using the initial-consonant-letter phoneme to recognize, spell, and read words. Children practice to find the first sound of a word in a set of plastic letters. After two words children begin to practice

speech-to-print matching. For example, they have to choose which one of two word cards presents “friend” and which one presents “kiss.”

A related program introduces letters, but only after proficiency in phonological skills is reached. For example, in the first part of Williams' (1980) program, the "ABD's of reading," children with emerging reading problems learn to analyze syllables and short words into phonemes and then to blend phonemes into syllables and words. Letters are introduced only after proficiency in these tasks is reached. First, they are taught in the context of individual-letter-phoneme correspondences. Then, decoding is taught. Children with emerging reading problems may profit most from this structured approach. Some programs explicitly stimulate the opportunity to apply phonological awareness during the reading of narrative text (e.g., Weiner, 1994). During the reading activity, the instructor explicitly links specific words in the text back to the earlier phonological skill lesson and points out the connection between the skill and learning to read.

As discussed above, a major difference between the phonological awareness programs, therefore, consists of the presence or absence of a linkage with letters or written words and phoneme awareness. An important aim of the present study is to test whether a training that combines phonological training, for example, through games, with a linkage to print letters or words can improve EFL decoding level.

### *Phonological awareness instruction in L2*

Research done with ESL learners found that when struggling L2 learners were explicitly taught phonological awareness strategies in their own language or in the second

language, they were able to learn the target language fairly successfully, and improve their phonological skills (Gunn, 2000, 2002).

Stuarts (1999) reported positive effects for a combined program of phonemic awareness and phonics intervention for ESL learners. In the study two approaches were proposed. “Jolly phonics” was defined as a phonemic awareness and phonics intervention while the “Big books” approach was based on a naturalistic whole language approach. The study was conducted in England with 112 four and five- year-old English language learners. The primary school teachers, who volunteer to implement one or the other approach, were asked to provide one hour of daily instruction with the targeted approach for a twelve-week period, starting with whole-class instruction and then splitting into small groups. Children were pre- and posttested on measures of phonological awareness and alphabet knowledge, showing a significant positive effect on “Jolly phonics” in comparison with the “Big books” instruction on children’s acquisition of phonological awareness and phonics on their ability to apply these in reading and writing. This superiority was performed at the same level when a year later the students were post tested again.

There is data indicating that specific instruction in developing PA is effective in word recognition and spelling, especially when the training phase includes alphabet knowledge (Byrne & Fielding-Barnsley, 1995; Ehri. et al, 2001). Recent research also demonstrates that explicit instruction in phonemic awareness and phonics is very beneficial for English learners learning to read in English.

Lesaux and Siegel (2003) examined the reading development of 978 NS and 188 ELs from a variety of language backgrounds from kindergarten to the end of second grade. Their study took place in a Canadian school district that provided explicit instruction in phonemic awareness and phonics within a balanced approach to literacy and intervention for struggling beginning readers. At the end of second grade, the ELs performed equal to or better than the NS on assessments of a variety of reading skills, including comprehension. Vaughn et al. (2005) also studied the effects of a code-based early reading intervention program on struggling first-grade Spanish-speaking ELs in Texas. The intervention program included explicit, systematic instruction in phonemic awareness, letter knowledge, word recognition, decodable text reading, basic comprehension processes, and vocabulary. Students made dramatic gains in decoding and comprehension, scoring on par with NS in these areas. Together, these two studies suggest the value of explicit, systematic code-based instruction as a part of a comprehensive literacy program for ELs.

The goals of any literacy intervention are to increase the skills necessary to strengthen future reading development as well as to increase the child's positive regard for literacy and likelihood of benefiting from reading in the future. Identifying the best literacy strategy for a specific child is the most likely way to effectively increase both literacy and interest (Lonigan, 2006).

Research with poor readers indicates that instructional programs must go beyond the very beginning levels of general phonological awareness to activities that draw attention to the phonemes in words. Gillon (2004) suggests that a successful training is



one which is not only administered before beginning instruction in reading, but while reading instruction is taking place.

Furthermore, the evidence presented above showed that a successful training combines rich language literature activities with direct instruction of letter sound, phonics and spelling. It has to provide several opportunities for individuals to feel the sounds as well as hear and see them. There is evidence that approaches to phonemic awareness that include associations are more effective than those that are only speech based or phonic based (Adams et al, 1998).

A successful training for language learners also have to meet the language principles of second and foreign language learners (Brown, 2007). It has to provide enough visual input such as picture cards to help learners to identify and understand vocabulary words and clarify the names and meanings of words. It has to include meaning-based activities which include the use of real words rather than pseudo-words. Activities should teach blending, segmentation, and manipulation of individual phonemes independently if these skills are used or not in the L1. Speech sounds in English may be different from those of the student's first language and do not need to be corrected if the differences are dialectal in nature. It is also suggested that when teaching phonological awareness to EFL learners it is suitable to teach groups of words that contain the same pattern, such as "hat", "cat", and "sat.". Also to practice sounds and words with English language learners to allow them to feel how these sounds are made in the mouth and throat. Finally be aware that students may have difficulty learning and distinguishing some English sounds that are not present in their native language, so corrections must be given in a way that do not harm the language ego of the learners (Brown, 2007).

Instruction for language learners should focus on those competencies that are most closely related to their success in reading and writing. Although little research has been done in the field of ESL/EFL instruction, there are several advantages of providing beginning and struggling ESL readers with explicit and systematic instruction in phonological awareness, orthographic patterns and word identification strategies. First, instruction in word analysis skills that is deliberately separated from meaningful context allows children to pay full attention to the letter-sound patterns that are taught (Morris, Tyner, & Perney 2000). Second, this instructional approach helps children to learn word decoding skills that may be useful in reading all texts, not just specific texts. This means that the acquisition of detailed knowledge of letter sound patterns is generative, and provides a way of identifying words not seen before. Third, including isolated word study in ESL programs helps learners to overcome their tendency to rely on ineffective word identification strategies, such as using picture cues and sentence context to identify unfamiliar words in text rather than using these cues to supplement word-level information. Fourth such instruction also helps to ensure that ESL learners see the importance of focusing on word level cues as the most useful source of information in identifying unfamiliar words.

### *Research Questions*

Several studies report the effect of explicit teaching of phonological awareness to native speakers of English in their reading development, and some evidence suggests that learning to read in one's native language can lead to higher level of literacy in both first

and second language (Collier, 1995). Previous studies demonstrated that phoneme awareness training, particularly when combined with letter- sound teaching, results in improved reading and spelling development (Adams et al, 1998).

However, few research has been done about the effect of explicit instruction of phonemic awareness and phonics in ESL learners (August & Shanahan, 2006), and I found non studies reporting the effect of such teaching methodology with Spanish speaking EFL learners.

When doing this research I was interested in how an explicit intervention in phonological and phonemic awareness, including English phonemes that do not exist in Spanish, would influence the EFL learners' word decoding level. Specifically, I examined the effectiveness of an explicit, systematic phonological and phonemic (auditory and visual) intervention program in third-grade Spanish-speaking EFL learners and compared the treatment conditions with a control group.

This study aims to contribute to this field by a) including children EFL learners, who have been excluded from previous studies b) adapting commercially available materials for native speakers and c) giving minimal training to teachers administering the program.

The necessity of this study lies in its potential benefit to ESL and EFL educators operating with limited time and personnel constraints in the classroom. Demonstrating the effectiveness of the intervention methodology is important to establish that a short-term, small group literacy intervention can be beneficial for L2 students. Students whose

decoding is affected by the transfer of phonological awareness features from their L1 may benefit from extra instruction in their early literacy in the L2.

The main goal of this study was to experimentally evaluate the effects of supplemental reading instruction in phonological awareness and phonics to improve decoding skills on word recognition. To do that several research questions were addressed throughout the study: 1) Is it possible to accelerate decoding skills and knowledge of grapheme- phoneme correspondences in Spanish- speaking EFL learners, by using an explicit phonological awareness and phonics teaching procedure by classroom teachers? Does phonological awareness training affects the decoding process in a positive and substantial way? 2) If so does this acceleration lead to more successful development of English pseudo-words decoding at the end of the training intervention? 3) Does the decoding treatment improve vowel decoding? 4) Is L2 explicit phonological awareness intervention an effective teaching methodology to be implemented in partial bilingual classrooms in Uruguay?

It is hypothesized that the intervention condition will demonstrate an increase in pseudo words decoding as compared to the control group in the performance post intervention test. If this hypothesis is confirmed, the study will extend the current research by examining the effects of short-term phonological awareness intervention when combined with small group instruction. It will also supplement the current ESL/EFL literature, and enhance the small number of studies that examine a combination of early literacy intervention with Spanish-speaking EFL learners.

## **Method**

### *Participants*

#### School sites

Children in Uruguay begin bilingual education in the public system on their sixth birthday, and formal reading instruction in Spanish begins at that time. Students attending Full time schools receive eight hours of instruction per day since first grade. The instruction is half of the time in Spanish and half of the time is in English.

Reading education in Uruguay follows a predominantly constructivist whole language approach in which literacy learning is seen as the natural by-product of active mental engagement (Brown, 2007). This instructional approach assumes “that self-discovery is the most efficacious mode of learning, that most learning can be characterized as ‘natural’ and that cognitive components should never be isolated/fractioned during the learning process” (Stanovich, 1994 p.264). However, this intervention study was aimed to investigate the effect of explicit phonological awareness and phonics of English instruction in Spanish speaking EFL learners decoding.

In October 2008, two full time Uruguayan public schools which met prior criteria were asked and voluntarily accepted to participate in this study. Both schools met the following characteristics: a) a school participating in the Partial English Immersion program, b) teachers who have completed the immersion trainings and c) teachers

working in the school who were willing to participate voluntarily in the application of the intervention methodology in their classroom. At the same time teachers in the schools were asked if they would be willing to take part in a study assessing the impact of explicit instruction in English word decoding. Two teachers (one teacher in each school) accepted to conduct the training and got the authorization by the Public Education Board in Uruguay to carry on the tests and intervention program. One of them dropped the study before it started in March 2009 due to personal reasons. Because of that, the intervention was carried on only in the Bilingual Public School 68 “Guyunusa” located in the city of San José, Uruguay.

#### Students’ participation

Students in this study had to meet the following criteria: a) be eight or nine years old by April 2009, b) be third grade students with two years of English instruction in the Immersion program, and c) be able to read at a third grade level in Spanish. The students’ level of Spanish reading was determined by their teacher who followed the rubrics given by the Uruguayan Primary Education Board. From a total of twenty-six students in the class, twenty- two of them met the criteria and were asked to participate voluntarily in the study. A student who turned ten years olds during the training was included as well. This student was taking the class for the second time.

Table 1 and Table 2 show the individual students characteristics in both groups. In the control group the distribution among age, previous class grade, socioeconomic status, and years of English instruction is as follow: ten eight-year-old students and one ten-

year-old student. From a total of eleven students, five of them have had a grade of B (C) last year, three of them got a BMB (C+), one got MB (B), and two got MBSTE(B+). Five of them came from middle low socioeconomic backgrounds, five from low socioeconomic backgrounds, and one from a very low income family. All of them had two years of English education (Table 1).

The intervention group met almost the same characteristics than the control group as shows Table 2. In the intervention group there were nine eight-years-old students, one nine- years-old student, and one ten-year-old student. Regarding their grades from the course before three of them have had a grade of B (C), one of them had a BMB (C+), two had an MBB (B-), three had MB ( B), and one had MBSTE (B+) (Table 2). Regarding their socioeconomic status seven of them came from middle low class families, three of them came from low class backgrounds, and one student came from a very low income family. All of the students had two years of English instruction, but two students. The student who was repeating the grade had three years of instruction, and a student who had one year of English instruction was included in the intervention program as well.

#### Classroom teacher

The twenty-two children came from the same third grade classroom in the school. The teacher, who was not the class teacher and provided the English training, had nine years of teaching experience and five years of experience teaching third graders. She had credentials as elementary school teacher and was certified to teach English as a Second language.

Table 1

*Control group information*

Part. Initials	Age	Student's past grades	Socioeconomic status	Years of Eng
A.H.	8	B	D	2
E.E	8	B	D	2
E.S	8	MBSTE	C	2
B.L	8	BMB	D	2
D.E	8	B	C	2
A.R	10	B	E	2
L.H	8	MBSTE	D	2
A.R.*	8	BMB	D	2
A.S.	8	B	C	2
M.P.	8	BMB	C	2
M.C	8	MB	C	2



Table 2

*Intervention group information*

Part. Initials	Age	Student's past grades	Socioeconomic status	Years of Eng
J.P.	8	B	C	2
V.G.	8	MB	C	2
L.M.R.	8	MBB	D	1
J.I.M	8	MBB	D	2
A.B.	8	B	C	2
L.O	8	MB	C	2
M.C*	8	MB	C	2
C.R.	8	B	E	2
E.T.	8	MB	D	2
A.P.	8	BMB	C	2
J.R.	9	Repeat	C	3

References

Uruguayan Grades' equivalence to American system

A= STE; A- = STMB; B+=MBSTE; B= MB; B- =MBB; C+ =BMB; C = B; C- = BR

Socioeconomic scale:

Level A= Upper class; Level B= Middle class; Level C= Middle Low class; Level D = low class; Level E= very low class

## *Materials*

### Decoding test

To examine the English phonological awareness training effect on English word decoding, a set of English pseudowords pretest and posttest were administered. The tests were administered to students in both intervention and control groups before and after the training intervention.

The tests created for this study included measures of phonological decoding ability focused on vowel recognition. To identify the features to be used for the test, a pseudoword decoding task from Woodcock Reading Mastery Test - Revised (1994) was applied to five students with the same characteristics of the subjects of the study. After identifying the difficulties in decoding three features were chosen to design the tests. The English phonemes were selected according to the following criteria: a) represent vowels of English that do not exist in Spanish, b) have a spelling pattern which also exists in Spanish c) avoid auditory confusability, d) ease of blendability of the phonemes in combination, e) ability of children to produce sounds, f) ease of learning grapheme-phoneme associations, and g) have regularity of phonemes in spelling patterns. According to this criteria the phonemes chosen were the vowels aI/, /i:/ and /eI.

Later on twenty-four monosyllabic pseudo-words were created. The pseudo-words created followed English orthographic and phonological patterns, but one of the consonants in each word was changed (i.e. made/gade and pain/zain). All pseudowords were CVC monosyllabic words with vowel orthographic representation variations (i.e. jait, samp, hane gick ). Consonant clusters at the beginning of words

were omitted. Before the tests were applied with the target group they were tested with two adult native speakers, two proficient third grade native speakers, and two poor readers' native speakers. The tests were administered to poor readers' native speakers in order to ensure that the EFL learners were at the same level.

The words were presented to the students in the form of a pick-a-pair list. The students were asked to read silently, and to circle the two words that share the same vowel sound among a group of four words (see Appendix C). The twenty four words were organized in six sets of four words where there were two words per set who shared the same vowel phoneme and two distracters representing different vowel phonemes.

Instructions for the test were given in the target language followed by an explanation (if required by the students) in Spanish (L1). Students were told that none of the words they were going to read were real, but that their job was to identify two words in a list of four that would have the same vowel sound if they were real. One practice item with corrective feedback was given before they took the test.

Once the tests were applied, the students' scoring was based on the number of items selected correctly. One point was given for each correct response. The maximum in each task was six.

### *Intervention*

The intervention program comprised six sequenced, semi-scripted lessons in phonemic awareness, phonemically based decoding strategies, and orthography. Students met with a bilingual certified teacher in a large group of eleven students three times a

week during two weeks in March. These lessons last between fifteen to twenty minutes. At the end of the program, the intervention group therefore received 100 -120 minutes of teacher directed complementary instruction in addition to their regular classroom literacy instruction in both languages. The additional training was administered in a room designated for this purpose during a time of the day that did not interfere with other curricular activities.

During the intervention program the students assigned to the control group continued receiving their daily eight hours of instruction in both languages. They received the same amount of time in reading instruction in English and Spanish from their classroom teachers as their partners in the intervention group did. Their reading sessions were focused on developing comprehension through the use of different texts such as stories or news, and answering questions worksheets.

The teacher who administered the tests and delivered the intervention lessons received three hours electronic professional development training from the researcher before the intervention began. The training included background information on phonemic awareness and its importance in early literacy development, demonstrations on ways to introduce specific letter phonemes, and practice with feedback to ensure that the teacher fully grasped the concept of phonemic awareness. No phonological instruction was given to her since she is fluent in the target language and has completed phonological courses in her country. Telephonic communication was held as the mean to approach pronunciation doubts when they arose.

The teacher's tasks included administering the pre and posttests and implementing the training. Daily the teacher followed the semi-scripted lesson plans in which anything she

need to say was presented in bold type (see Appendix D). Furthermore, the teacher was asked to record and to communicate to the researcher all the situations when she deviated from the plan, as well as the changes and results observed in the children.

Permanent communication and assistance (when necessary or required) was held with the teacher, through email and web-cam conferences. The main purposes of these interactions were: a) to clarify lesson plans b) to discuss issues regarding the implementation of the intervention, c) to review the use of the intervention materials, d) to reorganize intervention activities according to the students' development and e) to discuss specific problems that arose everyday regarding the participating children.

#### Instructional intervention and lesson plans

All of the auditory and phonic analysis and sequencing practice was done with three phonemes : aI/, /i:/ and /eI/ which selection criteria was discussed above. The lessons and materials used were based on a variety of theoretical and pedagogical resources (Gillon, 2004, Cunningham, 2005, Golgsworthy, C. & Pieretti, 2004), and were adapted for their use in an EFL classroom, in order to meet the learners needs. The intervention program was specifically based in the book "SRA Spelling" by Nancy Roser and Jean Wallance Gillet (2002), which is addressed for native speakers of English, with adaptations based on "Research- Based Methods of Reading Instruction Grades K-3" by Sharon Vaughn and Sylvia Linan-Thompson (2004).

Instruction was provided at a quick pace giving students many opportunities to promote ongoing exchange with other students, and with the instructor while at the same

time receiving her feedback. The teacher provided explicit instruction following the predetermined lesson plans, which were organized attending to the integration of various content strands (i.e. phoneme awareness, letter sound knowledge, phonemic awareness, word recognition).

In a typical activity the teacher asked students to respond to letters and words and provided opportunities for each student to respond to demonstrate knowledge and progress. Furthermore, the twenty- minute lessons were organized in five to six activities, promoting quick movement from one activity to the next one.

Each of the six semi-scripted lesson plans included the following components: a) materials required, b) review of previous learned material, c) phonemic awareness exercises, d) main lesson focusing on teaching-letter sound correspondences, e) activity reinforcing or evaluating the new material introduced, and f) teachers' observation and comments.

The teaching routine included: revision of the concept worked on in the previous class, introduction of a new phoneme (by reading a text or doing a word game), modeling of the new concept, guided practice for students, and implementing independent practice. The instructor monitored students' responses providing positive recognition and feedback when an error occurred.

A short introductory section to teach the child the concept of analysis, that is, that words can be broken down into parts, was included at the beginning of each lesson. Then, each phoneme analysis was taught. The children learned to analyze at the phoneme level,

that is, he/she could tell whether the phonemes occupied initial, middle, or final position in a word. As the children were encouraged to identify the phonemes, they were also learning to represent them visually with counting material (Elkonin, 1973). Counting materials represented the phonemes and aided in focusing on the number and the order of sounds. However, visual representation of the phonemes was taught simultaneously. Students were taught the letters and letters combination that represented each phoneme (Bryant and Bradley, 1985). The activities involved relating sounds in words to their spelling patterns, in combination with sound categorization training. Additionally, the teacher in each activity explained students that in English some sounds are represented through more than one letter or letter combination and that some letters make more than one sound, which may not be true in their L1.

The phonemic awareness exercises included primarily oral activities with tasks of rhyme identification and production, syllable and letter counting, phoneme isolation, segmentation, blending and substitution (Vaughn, 2004). Each new phoneme and its letter representations were introduced during the main lesson. Phonemes and graphemes were, in order to involve the students, approached from an active context related perspective. Words were introduced through texts, games, and manipulative activities, which allowed students to interact physically with the words, using hands-on materials (Cunningham, 2005).

Because L2 learners may have trouble remembering sounds that do not exist in their own language, the activities were designed to give them explicit guidance to identify and generalize phonological and phonetic rules (De la Luz Reyes, 1992). The activities

did not include drilling of the isolated sounds. However, repetition was used in meaningfully contexts such as poems, texts, and nursery rhymes.

The materials used included pictures, phonetically controlled texts and nursery rhymes addressed for native speakers, counting material, phoneme counting picture cards, and audio games.



## Results

### *Pretest performance*

A total sample of twenty-two students participated in the present research. They were equally divided and arranged in the control or the intervention group. Each group had eleven students. Each student was assessed by six questions. The total possible right answers per group were sixty-six.

Pretest performance for the treatment and the comparison group are presented in Figure 1. The comparison group completed a total of fifteen right answers out of sixty-six, while the intervention group completed correctly sixteen answers. The students' correct answers distribution was mostly homogeneous between the two groups as shown in Table 3. Out of a total of six possible right answers per student the distribution of results was as follows: two students in each group obtained a score of zero (0), five students obtained a score of one (1), two students completed a score of two, two students in the control group and one in the intervention group scored three, and only one student in the intervention group scored four (Table 3).

The tests administered evaluated the decoding of three phonemes (/eI/, /i:/ and /aI/). Each phoneme decoding was with two questions. The total possible right answers per phoneme were twenty-two for each group.

Pretest performance for each phoneme for the treatment and comparison group are presented in Figure 2. Out of a total of twenty two possible right answers per phoneme in each group, the distribution of results for the control group was as follows: nine(9) correct answers for the phoneme /eI/, four (4) correct answers for the phoneme /i:/, and a score of two (2) for the phoneme /aI/.

The intervention group scores for each phoneme are eight (8) correct answers for the phoneme /eI/, three (3) correct answers for the phoneme /i:/, and a score of six (6) for the phoneme /aI/ (Figure 2).

#### *Posttest performance*

The results of posttest performance are presented in Table 4. The posttest performances of the treatment group were consistently, significantly, and meaningfully greater than those of the comparison group students. The intervention group decoded a total of thirty-two (32) words out of sixty-six, while the control group decoded seven (7) words.

There is also a big difference between the performances of the intervention group before and after receiving the treatment. The posttest results doubled the pretest score for the intervention group. Before the treatment the group decoded correctly sixteen (16) words, but after the treatment the total number increased to thirty two correct answers (32) as shown in Figure 1.

According to the results presented in Table 4, students with the lowest phonological awareness level in the pretest , whose scores where zero and 1 correct answers, were the ones who achieved the highest number of correct answers in the posttest (J. P; V. G; J. I. M; . A.;B; . L. O M. C.). There is only one child (MC) whose scored decreased, because he answered two questions correctly in the pretest, but none in the posttest (Table 3)

Surprisingly, when the control group was administered the second test its scores declined from fifteen (15) correct answers to seven (7) correct answers, but three students (A.S; M.P; M.C) gain of one or two points (Table 3)

Posttest performance for each phoneme for the treatment and comparison groups are presented in Figure 3. The control group scored five (5) for the phoneme /eI/, two correct answers for the phoneme /i:/, and one point for the phoneme/ aI/.

The intervention group scores for each phoneme are sixteen (16) correct answers for the phoneme /eI/, and eight (8) correct answers for each of the phonemes /i:/ and /aI/.

## **Discussion**

The main differences between the intervention and control group have been described above: students who received the supplemental instruction performed significantly better than those who did not receive supplemental instruction, and also performed better after the instruction than before to receiving it

From the results mentioned, it could be summarized that following a course of ninety minutes of phonological decoding skills training, improvement in the phonological processing and decoding skills was observed in the intervention group. The difference in the two groups' performance on pseudo-word phonological decoding and the difference in the performance of the intervention group before and after the treatment favored the supplemental instruction condition.

Findings have clear implications for language teaching. Results indicate that Spanish speaking EFL learners who received supplemental instruction in English PA benefited as much as native speakers' poor readers (Gillon, 2004). The results reinforce the hypothesis that implicit instruction, by reading words and texts and by listening and associating letter patterns with sounds, is an effective strategy to develop PA (Gillon, 2004; Adams, 1998). Posttest results indicated that skills acquired during the training had accelerated students' growth in literacy development and positively affected the skill area targeted in training.

Awareness skills at the phoneme level showed accelerated growth. Students participating in the intervention group improved phoneme analysis and decoding skills transferred to the reading process, and growth was evident at the single word level. Findings are consistent with previous studies showing the value of supplemental instruction in decoding skills for Hispanic and non-Hispanic students in early elementary school (Gunn, 2000). In addition, findings extend previous work to show the value of this intervention for Spanish- speaking EFL learners.

The results of this study suggest that instruction and practice in alphabetic reading skills increased students ability to decode non real words. Students who received explicit instruction in phonemic awareness, sound letter correspondence, and sounding out words with daily practice reading decodable texts were more skilled in decoding English pseudo-words than children who did not receive supplemental instruction focused on these skills. This is significant as there is a correlation between pseudo-word reading and irregular or non familiar word reading (Freebody & Byrne, 1988). Furthermore the improvement in the intervention group supports Gombert (1992) and Torgesen (2000) hypothesis which states that metalinguistic control develops in response to external factors such as direct teaching.

All but one of children who showed weak phonological awareness, improved in the decoding task after the intervention program. Furthermore, only one child was negatively affected by the training, while six of them improved their performance. According to the results, it seems that the students with the lowest phonological awareness level were the ones who did benefit the most from the training, since these

where the ones who showed the highest number of correct answers in the posttest (J. P; V. G; J. I. M; . A.;B; . L. O M. C.). These results correlate with studies done with poor reading native speakers who are considered the ones who benefit the most from this type of training (Gillon, 2004). Furthermore, these children seem to profit more from PA training than children who develop reading abilities in a normal way.

Another interesting aspect about the training is that there were four children whose performance did not improve but did not decrease either. The maintenance performance level before and after the training suggests that although the introduction of PA and phonics activities are not worthy for all the students, they do not harm their development either.

The individual analysis of the phonemes addressed in this study suggests that there are certain English phonemes easier to be decoded than others for EFL learners. The tendency that repeats between the control and intervention pre and posttests is that the first phoneme in being acquired is /eI/, followed by the /i:/ and then /aI/. According to Ziegler & Goswami, (2005) differences in the rate of acquiring phoneme awareness reflect orthography consistency. Students have shown a heavier reliance on the phonology of the language than in the visual strategy in processing the second language when the L1 orthography is transparent.

Phonological awareness in English improved after the training as it was expected. The explanation toward improvement or skillfulness in awareness levels within the language could be from the perspective of developmental progression hypothesis, which indicated phonological awareness develops from basic rhyme awareness toward more

cognitive-demanded phoneme awareness (Ciscero & Royer, 1995). Based on this, children who are mature in the basic rhyme awareness can move to higher onset awareness and phoneme awareness. Otherwise, if the building abilities are not well-developed, children's awareness won't be lifted to another level. The results in this study presented an empirical support toward the causal relationship between PA and decoding. After training, improvement in L2 phonological decoding awareness scores was found.

Apart from the phonological gains students made during the intervention, a discussion with the teacher who applied the training revealed that the students had become more confident in their literacy abilities. Furthermore, the teacher who carried on the training expressed, "They are now engaged in identifying and explaining their classmates about the relationship between phonological and orthographic patterns."

## **Conclusion**

Previous research has highlighted that decoding in the L2 can be affected by the inexistence of phonemes in the learners' L1, or by the transfer of L1 orthographic and phonological patterns knowledge into their L2. In consequence, the aim of this research was to show that an explicit phonological awareness and phonics training in the L2 (English in this case) is a valid teaching alternative in a Spanish-speaking EFL classroom to promote and facilitate L2 word decoding.

The present research comprised six semi-structured lessons which were administered to an intervention group of eleven third grade Spanish- speaking EFL students. During the lessons the teacher focused on making explicit for the students the relationship between the phonemes addressed and the graphemes and graphemes patterns used to represent each phoneme. The overall goal of the intervention program was to provide EFL learners with direct instruction in making connections between their speech sounds and the corresponding letters and letter patterns in English orthography. Furthermore, the program aimed to introduce and prove the efficacy of explicit phonological and phonics awareness activities in contextualized reading activities as a strategy to be implemented for teachers when teaching Spanish-speaking EFL students to read English words.



After administering the training and comparing the posttest and pretest results of the control and intervention groups, it is possible to conclude that this study supports the efficacy of an explicit phonological awareness with knowledge of grapheme-phoneme correspondences instruction for Spanish-speaking EFL learners. The posttest results contribute to answer positively to all of the research questions. First, when Spanish speaking EFL students were explicitly instructed about the different phonemes and their grapheme representations, they improved in a positive and substantial way their phonological decoding performance, improving vowels decoding specifically. Secondly, L2 explicit phonological awareness intervention also proved to be an effective teaching methodology to be implemented in partial bilingual classrooms in Uruguay.

The results of the present study have a number of practical implications. First, PA was found to be of great importance for English word decoding for Spanish-speaking EFL children. Therefore, explicit training of phonological awareness skills should be encouraged for Spanish EFL and ESL children. Second, knowing the order in which phonological awareness skills develop would enable educators to develop assessment procedures designed to pinpoint the child's development level. Third, this research documents that children coming from economically disadvantaged backgrounds do also benefit from PA training. This paper encourages teachers to include in their daily planning, short routine PA activities. These should focus on the teaching of one phoneme at a time starting with those that are different from the student L, while introducing the relationship between print and sound in a systematic order. It is not necessary to plan a small group one hour lesson, but teachers should dedicate to the whole class fifteen

minutes daily to draw students' attention to specific skills related to phonological awareness such as phoneme awareness.

This study has a number of limitations that must be considered. First, although the analyses of the data available within the present database provided some additional information on the development of phonological awareness and its relationship to decoding, the number of participants tested was limited. This means that the results of the analyses should be interpreted with caution. Second, the results of the present study held for Spanish-speaking EFL children's word decoding abilities. If the prediction of children's reading comprehension and text writing abilities were considered, different outcomes might be obtained. Consideration of reading comprehension and writing abilities would undoubtedly provide a fuller picture of ESL children's functional reading and spelling skills. Measures of reading comprehension and writing ability should thus be considered in future research. The EFL children in the present study generally entered the school system with no English proficiency, and it therefore seems safe to assume that the results cannot be generalized to ESL learners. The main difference between EFL and ESL learners is their environment. While EFL learners only have the input from the teacher in the classroom, ESL learners also have the support of the English community outside the classroom, which may play a very important role in the phonological awareness development.

In closing, it is important to note that the findings of this study apply to basic literacy skills and not to reading comprehension or text writing ability. Although this is a first attempt to offer specific guidance in translating research into effective EFL classroom instruction, I hope that this overview will challenge EFL and ESL teachers to

examine their current instruction and consider general ways that it might be enhanced. Given the importance of PA for learning to read and the educational value of a developmental order of PA, PA development is a research issue that has yet to be given adequate attention. Further research about teaching methodologies effects in EFL students should be carried on.

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## Tables and Figures

*Figure 1*

Control and intervention group pre-and posttest performance on the phonological decoding test.

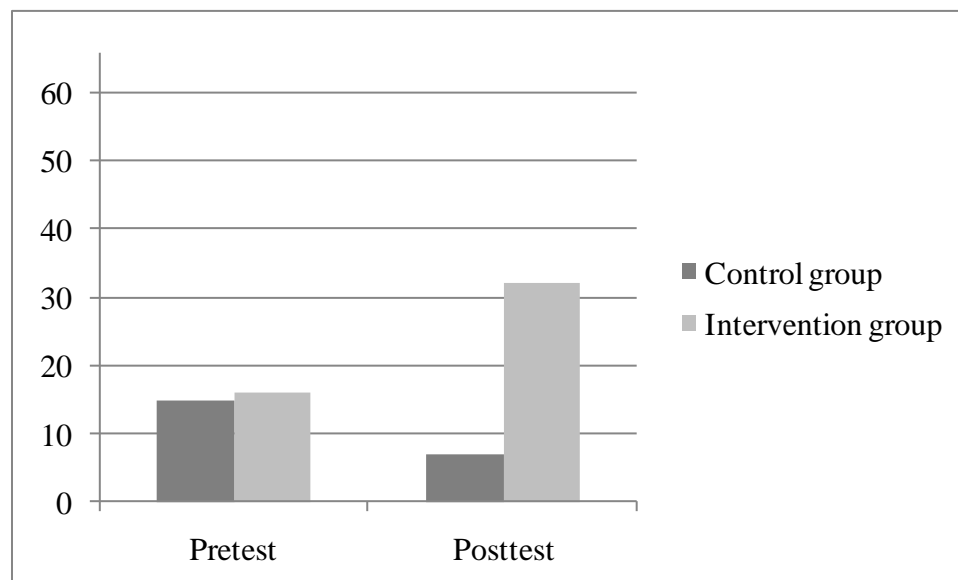


Figure 2.

Control and Intervention groups pretest phoneme distribution.

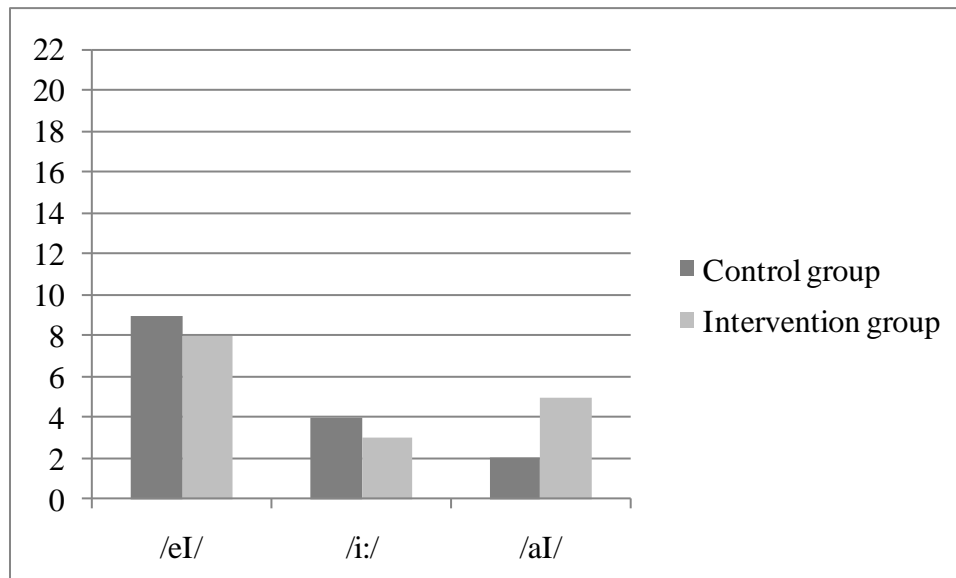


Figure 3.

Control and Intervention groups' posttest phoneme distribution

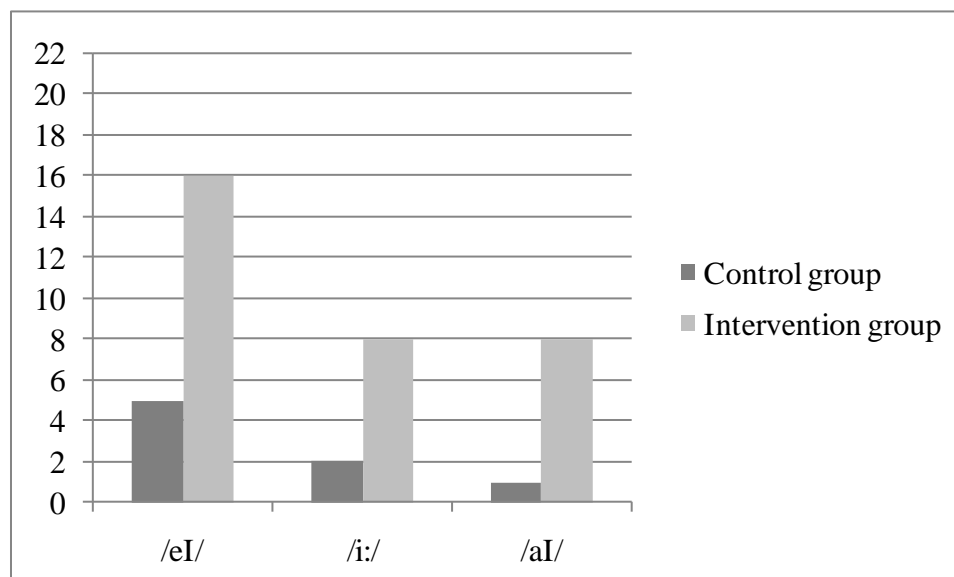




Table 3 *Control group pre- and posttest performance on the pseudo word decoding tests.*

Participants' Initials	Pretest score (max. 6)	Posttest score (max. 6)	Gain
A.H.	3	0	-3
E.E	3	2	-1
E.S	2	0	-2
B.L	2	0	-2
D.E	1	0	-1
A.R	1	0	-1
L.H	1	0	-1
A.R.*	1	0	-1
A.S.	1	3	2
M.P.	0	1	1
M.C	0	1	1
Total	15	7	-8

Table 4 *Intervention group pre- and posttest performance on the pseudo word decoding*

*tests.*

Participants' Initials	Pretest score (max. 6)	Posttest score (max. 6)	Gain
J.P.	0	2	2
V.G.	0	2	2
L.M.R.	1	1	0
J.I.M	1	3	2
A.B.	1	4	3
L.O	1	6	5
M.C*	1	5	4
C.R.	2	0	-2
E.T.	2	2	0
A.P.	3	3	0
J.R.	4	4	0
Total	16	32	16

## Appendix A

### Parental consent

**Title of the study:** Phonological awareness and Explicit Instruction in an EFL classroom.

#### **Study Purpose and Rationale**

The purpose of this research project is to examine the effectiveness of an explicit instruction in English phonemes, as an alternative teaching methodology, in the reading performance of second language learners. Findings from this research may help English as Second Language teachers to introduce new methodologies in their reading lessons

#### **Inclusion/Exclusion Criteria**

To be eligible to participate in this study, your child must be between the ages of 8 and 9 years by April 30, 2009, to be able to read in Spanish, and to have had at least two years of English instruction.

#### **Participation Procedures and Duration**

For this project, your child will be assigned randomly to one of two groups: the control group or the intervention group. Both groups of students will be administered a reading pre-test in the first session and a reading post test in the last session. They will take approximately 15 minutes each. If your child is assigned to the intervention program he/she will participate in five sequenced phonemic instruction lessons. Each activity will last 15 minutes each

#### **Audio or Video Tapes**

For purposes of accuracy, with your permission, the participants will be audio taped. Any names used on the audiotape will be changed to pseudonyms when the tapes are transcribed. The tapes will be stored in a locked filing cabinet in the researcher's office for three years and will then be erased.

#### **Disclosure of Alternative Procedures**

This is an alternative methodology to work in class. If your child does not participate in it he/ she will keep receiving the same learning to read instruction.

#### **Data Confidentiality or Anonymity**

All data will be maintained confidential and no identifying information such as names will appear in any publication or presentation of the data.

### **Storage of Data**

Paper data will be stored in a locked filing cabinet in the researcher's office for 6 months and will then be destroyed. The data will also be entered into a software program and stored on the researcher's password-protected computer for one year and then deleted. Only members of the research team will have access to the data.

### **Risks or Discomfort**

The only anticipated risk from participating in this study is that children may not feel comfortable reading some of the words. They may choose not to answer any question that makes them uncomfortable and they may quit the study at any time. .

### **Who to Contact Should Your Child Experience Any Negative Effects from Participating in this Study**

Should your child experience any feelings of anxiety, there are counseling services available to them through the Inspección de Educación Primaria.. Colón 575 Tel 034-22277 CP 80000

### **Benefits**

One benefit your child may gain from participating in this study is more accurate English reading.

### **Voluntary Participation**

Your child's participation in this study is completely voluntary and you are free to withdraw your permission at anytime for any reason without penalty or prejudice from the investigator. Please feel free to ask any questions of the investigator before signing this Parental Permission form and at any time during the study.

### **IRB Contact Information**

For one's rights as a research subject, you may contact the following: Research Compliance, Sponsored Programs Office, Ball State University, Muncie, IN 47306, (765) 285-5070, irb@bsu.edu.

\*\*\*\*\*

### **Parental Consent**

I give permission for my child to participate in this research project entitled, "Phonological awareness and Explicit Instruction in an EFL classroom." I have had the study explained to me and my questions have been answered to my satisfaction. I have read the description of this project and give my permission for my child to participate. I understand that I will receive a copy of this informed consent form to keep for future reference.

---

Parent's Signature

---

Date

**Child Assent**

The research project has been explained to me and I have had the opportunity to ask questions. I understand what I am being asked to do as a participant. I agree to participate in the research.

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Child's Signature

---

Date

## Appendix B

### **Institution Consent of Participation**

*Escuela bilingüe GUYUNUSA de Tiempo Completo N° 68*

*San José- Uruguay*

**Study Title:** Phonological awareness and Explicit Instruction in an EFL classroom

#### **Study Purpose and Rationale**

The purpose of this research project is to examine the effect of phonological awareness instruction in the word reading decoding development of ESL students. Findings from this research may help teachers to better understand how to teach ESL learners to read

#### **Inclusion/Exclusion Criteria**

To be eligible to participate in this study, students must be between 8 and 9 years old by April 30 2009, have taken 2 consecutive years of English instruction in an immersion program, and be able to read at the third level in Spanish.

#### **Participation Procedures and Duration**

For this project, students will participate in three activities. The first one is a 10 minutes reading pretest. The second is a two weeks training session. Each session will last 20 minutes per day and students will complete a series of reading tasks. The last instance is their participation in a 10 minute reading posttest.

#### **Disclosure of Alternative Procedures**

This is an alternative methodology to work in class. Students who do not participate in it will keep receiving the same learning to read methodology.

#### **Data Confidentiality or Anonymity**

All data will be maintained as confidential and no identifying information such as names will appear in any publication or presentation of the data.

#### **Storage of Data**

Paper data will be stored in a locked filing cabinet in the researcher's office for 6 months and will then be destroyed. The data will also be entered into a software program and stored on the researcher's password-protected computer for one year and then deleted. Only members of the research team will have access to the data.

### **Risks or Discomforts**

The only anticipated risk from participating in this study is that children may not feel comfortable reading some of the words. They may choose not to answer any question that makes them uncomfortable and they may quit the study at any time.

### **Who to Contact Should You Experience Any Negative Effects from Participating in this Study**

Should students experience any feelings of anxiety, there are counseling services available to them through the Inspección de Educación Primaria.. Colón 575 Tel 034-22277 CP 80000

### **Benefits**

One benefit students may gain from participating in this study is more accurate English reading.

### **Voluntary Participation**

The students and teacher participation in this study is completely voluntary and they are free to withdraw from the study at anytime for any reason without penalty or prejudice from the investigator. Please feel free to ask any questions to the investigator before signing this form and at any time during the study.

### **IRB Contact Information**

For one's rights as a research subject, you may contact the following: Research Compliance, Office of Academic Research and Sponsored Programs, Ball State University, Muncie, IN 47306, (765) 285-5070, [irb@bsu.edu](mailto:irb@bsu.edu).

\*\*\*\*\*

I, \_\_\_\_\_, agree to participate in this research project entitled, "Phonological awareness and Explicit Instruction in an EFL classroom" I have had the study explained to me and my questions have been answered to my satisfaction. I have read the description of this project and give my consent to participate. I understand that I will receive a copy of this informed consent form to keep for future reference. To the best of my knowledge, I meet the inclusion/exclusion criteria for participation (described on the previous page) in this study.

\_\_\_\_\_  
Participant's Signature

\_\_\_\_\_  
Date

ANEP Director

## Appendix C

### **The Nonsense Word Reading Test** **Decoding test for Spanish speaking ESL learners**

#### **Aim:**

The nonsense word reading test measures decoding skill and reveals whether or not a student has the ability to decode phonetically.

#### **Materials Needed for Administration:**

- examiner copy of probe
- student copy of probe
- practice items
- stopwatch
- pencil or pen

#### **Administering the Test**

Administer the test to all students at the same time. Make a copy of the students' decoding pretest sheet per student.

Using the target language, explain to the students that they are going to read each word silently. Point out that the words are nonsense, or made-up, words.

Also, explain that in each list of four words, two of the words can have the same vowel sound. Tell them that they are supposed to read each word silently and circle the two words that have the same vowel sound.

Ask students in their L1 if they understood the instructions. If not, repeat the instructions in their L1.

Do the example aloud with the whole group of students.

Allow twenty minutes to complete the test.

#### **Scoring the Test**

Total the number of words that the student decoded correctly.



### Student's decoding pretest sheet

FECHA/ date :

NOMBRE/ name :

#### Instrucciones/ Instructions

En cada lista de cuatro palabras, dos de las palabras tienen en mismo sonido en las vocales. Lee cada palabra en silencio y encierra las dos palabras que tienen en mismo sonido en las vocales.

In each list of four words, two of the words can have the same vowel sound. Read each word silently and circle the two words that have the same vowel sound.

#### Example

mest beal delp vack

- |         |      |      |      |
|---------|------|------|------|
| 1. jait | samp | hane | gick |
| 2. gade | wast | mick | zain |
| 3. kend | geem | feap | sart |
| 4. leet | zerb | seaf | gask |
| 5. bist | delf | rike | gyne |
| 6. fype | zick | lerb | dite |

#### Teacher's Answer sheet

Assign 1 point per correct item. The words in bold (**bold**) are the correct answers

- |                |             |             |             |
|----------------|-------------|-------------|-------------|
| 1. <b>jait</b> | samp        | <b>hane</b> | gick        |
| 2. <b>gade</b> | wast        | mick        | <b>zain</b> |
| 3. kend        | <b>geem</b> | <b>feap</b> | sart        |
| 4. <b>leet</b> | zerb        | <b>seaf</b> | gask        |
| 5. bist        | delf        | <b>rike</b> | <b>gyne</b> |
| 6. <b>fype</b> | zick        | lerb        | <b>dite</b> |

### Student's decoding posttest sheet

FECHA/ date :

NOMBRE/ name :

#### Instrucciones/ Instructions

En cada lista de cuatro palabras, dos de las palabras tienen en mismo sonido en las vocales. Lee cada palabra en silencio y encierra las dos palabras que tienen en mismo sonido en las vocales.

In each list of four words, two of the words can have the same vowel sound. Read each word silently and circle the two words that can have the same vowel sound.

#### Example


mest beal delp vack

- |         |      |      |      |
|---------|------|------|------|
| 1. wait | famp | zane | jick |
| 2. kade | bast | fick | hain |
| 3. gend | leem | veap | jart |
| 4. zeet | derb | weaf | pask |
| 5. hist | jelf | gike | ryne |
| 6. dype | gick | merb | vite |

#### Teacher's Answer sheet

Assign 1 point per correct item. The words in bold (**bold**) are the correct answers

- |                |             |             |             |
|----------------|-------------|-------------|-------------|
| 1. <b>wait</b> | famp        | <b>zane</b> | jick        |
| 2. <b>kade</b> | bast        | fick        | <b>hain</b> |
| 3. gend        | <b>leem</b> | <b>veap</b> | jart        |
| 4. <b>zeet</b> | derb        | <b>weaf</b> | pask        |
| 5. hist        | jelf        | <b>gike</b> | <b>ryne</b> |
| 6. <b>dype</b> | gick        | merb        | <b>vite</b> |



## Appendix D

### Lesson plans and materials

#### **Explicit phonological and phonics intervention**

# Teacher is encouraged to correct the students' pronunciation as many times as necessary as well as to give them positive feedback.

#### **Lesson plan #1. Sound /eI/**

##### **Activity:**

The teacher asks one student at a time to take out of a box/bag one of the following flashcards (pay, bike, pail, eighty or maple), show it to the other students, and say the word aloud.

Teacher pastes all the pictures on the board and ask the students:

**How are these words the same?**

**How are these words different?**


Teacher helps students to focus in the vowel sound as equal (/eI/) and the spelling as different by repeating aloud the words and pointing to them.

Teacher explains to students that in English some sounds such as /eI/ are represented by a unique letter ( i.e . the a in maple) or by the combination of letters ( i.e. ay in pay or ei in eighty ). Explain to them that in English the number of sounds in a word may be different than the number of letters.

Invite students to take out of a bag the exact number of counting cubes as sounds they identify in each word. [Pay ( 2); pail (3); eighty(4); maple(4)].

**Assessment:** Give the students the handout with the words: bacon, male, frame, brain and freight and ask them to complete with the number of sounds each word has.

**Materials:** Flaschards, box/bag, tape, handout, and counting material.



## Lesson plan #2. Sound /eI/

### Activity:

Ask students to tell the teacher what they learned the class before (English words use the same letters that Spanish, but their sounds are different in same vowels. English words may have more/less sound in them than letters represent them)

Show an envelope to the students and tell them :

**You have to guess what the picture I have here is listening to my instructions:**

**# it is a mean of transportation.**(write down the students options as they are saying them: bus, car, truck, bike, train, airplane, ship)

**# the word has 4 letter sounds ( ask the students to delete from the list the ones that have more or less than 4 sounds)**

**# it has the / eI/ sound in the middle of the word** (ask students to delete the ones that do not have the /eI/ sound in the middle from the list)

**# it starts with the / t / sound ... what is the word?**

Teacher says to the students they are going to play an attention game.

**You are going to listen to a story and I want you to take a counting cube from the box you have each time you listen to a word with the /eI/ sound as in train.**

Read the story “The first trains” aloud. At the end ask the students how many words with the /eI/ sound they found and which ones they remember.

Give a copy of the story and let students look for the words with /eI/ sound while they with the teacher read aloud the story.

Draw students’ attention to the different spelling patterns for the words with /eI/ sound.

Ask students to make a list with the words from the reading that have the /eI/ sound according to the different spelling pattern they found. Make the list on the board

**Materials:** Reading “The First trains”, counting materials, board, flashcard, envelope.



### **Lesson # 3 sound /i:/**

#### **Activity**

Ask students to tell the teacher what they learnt the class before and give an example (English words use the same letters that Spanish but their sounds are different in some vowels ).

Tell students:

**We are going to learn about a new sound in English, but Mr iii (puppet) is going to help us to identify the new sound. Mr ii likes all words but especially the ones that have the / i:/ sound. In English there are words that have the same /i/ sound as in Spanish but it is longer.**

**Introduces Mr ii and make the puppet say:**

**Can you help me know which of these words have the /i:/ sound by clapping when you listen to the /i:/ sound**

**The teacher says aloud the words: Sweden, bean, ceiling, rocket, me, cat.**

Give students a copy of the text “ Worlds apart” and a color marker. Ask them to color the word they listen to that have the /i:/ sound while the teacher reads it aloud.

Write on the board the words students identified that have the /i:/ sound. Ask students to classify them according to the spelling patterns ( ee; ea; I e; ey).

**Materials :** Reading ‘World Apart’, color markers.



#### ***Lesson #4.***

Ask students to tell the teacher what they learned the class before and give an example ( English words use the same letters as Spanish but their sounds are different in same vowels ).

Introduce a short nursery rhyme and ask students to identify all words that have the /i: / sound.

Say the rhyme aloud

**Dad gave me an apple seed. Then he pulled up a weed. But he did not see the bee. Ouch, it really hurts a bee sting.**

Ask students to read the rhyme aloud with the teacher.

Tell student to say the sounds they identify in each word: seed ( i.e. sounds: /s/, /i:/, /d/), weed, see, and bee.

Give students the consonant substitution chart.

Ask students to make up new words by adding, changing, or dropping one or more letters in each word. The condition is that all the words must have the /i:/ sound in them.

***Materials :*** Rhyme, consonant substitution charts

#### ***Lesson #5 : Sound /aI/***

Tell the students they will learn a new vowel sound, the /aI/ sound.

Ask students to say words that have the /aI/ sound (i.e. pipe, line, slight)

Give each student a copy of the text, “Helen Keller”. Ask them to read silently and to circle the words that have the / aI/ sound.

Read the text aloud and ask students to check whether they circled the right answer or not.

Write on the board the spelling patterns for the/aI/ sound (**i, i\_e, y, igh**) and ask students to write the words they found in the text under each spelling pattern.

***Materials :*** reading “Helen Keller”, pencil, eraser, board.

#### ***Lesson #6***

Ask students to tell the teacher what they learned the class before and give an example (English words use the same letters as Spanish, but their sounds are different in some vowels ).

Write on the board the following words: **wine, aim, state, life, cried, night, mind, eyes, life, style, cake, make, reef, jockey.**

3. Invite students to play the game, “I spy with my little eye”.
4. Tell them:  
**I am thinking of a word from the list.**  
**It has the /aI/ sound.**  
**It has 4 sounds.**  
**It ends with /d/**  
**What is the word?**
5. The teacher will perform the game twice before asking a student to give 4 clues to his/her classmates about the word he/she is thinking of.

**Teacher's comments:**

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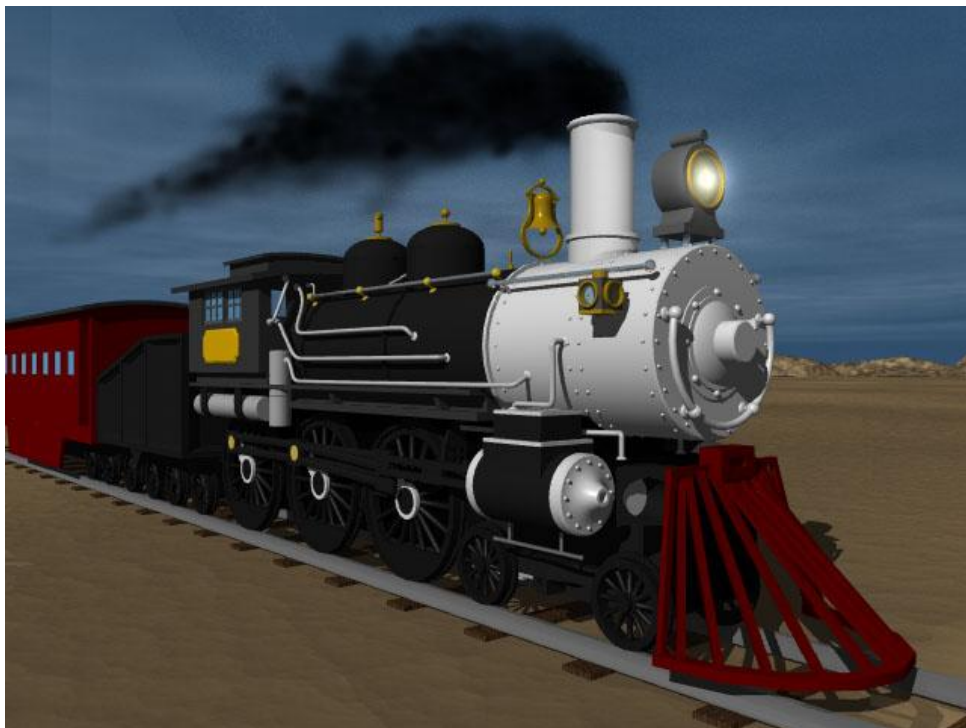
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Flaschard





# "The First Trains"



The first trains carried goods instead of people across the country. These trains that carried **freight** went from California to Maine, stopping in almost every **state** in between. They carried almost anything you could imagine from **grain** to feed horses to **bacon** for making breakfast.

At first only **male** workers could ride on the **railway** cars, because it was too dangerous for women. People still **claim** that many engineers were killed on the long, winding trail through the wilderness. It took a **brave** man to run the train in these days. He had to use his **brain** to think his way out of trouble fast. The most important **aim** was to make sure that not one package would **stray** from its route. First the workers would **weigh** each package on a **scale** to find its full **weight**. Then they would make a label with a red **crayon** finally they would **paste** the label on the package. This helped them to keep track of the freight on the train.



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Students' copy.



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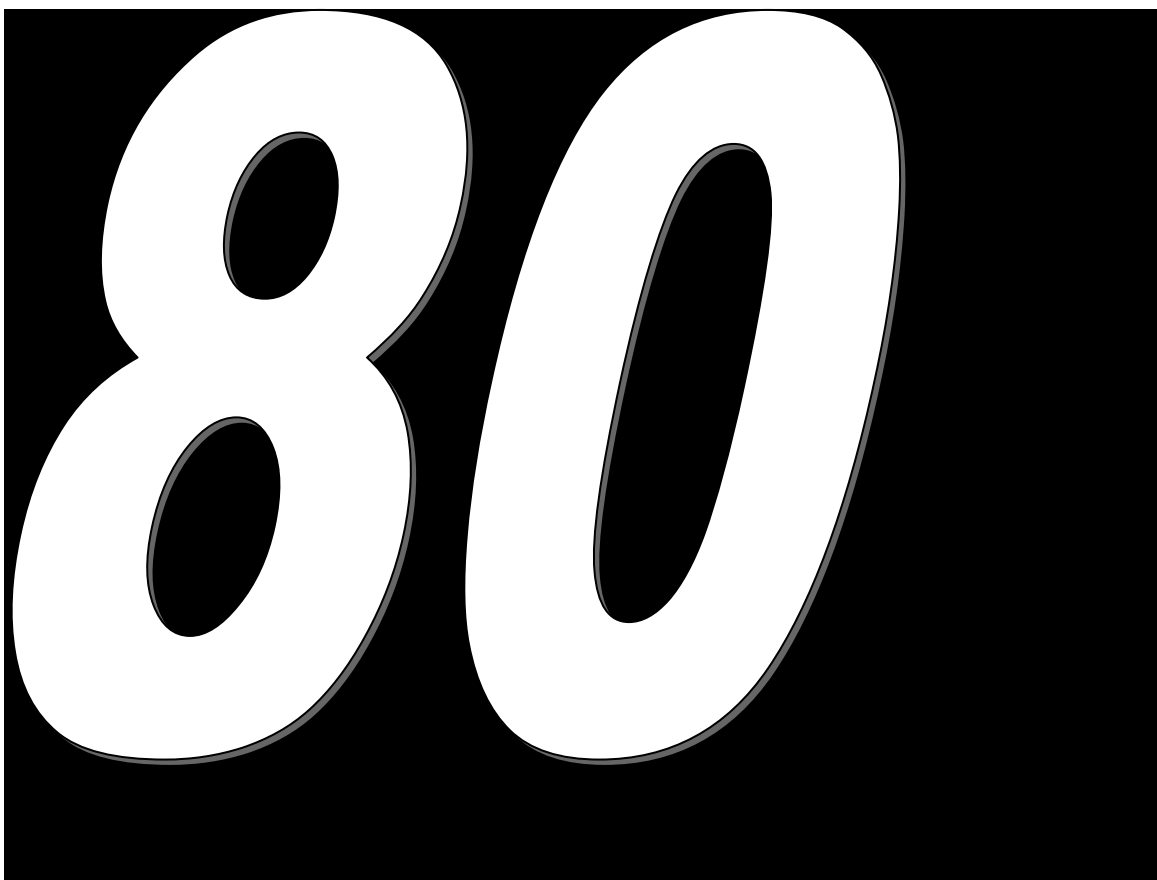
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**ACTIVITY # 2 Flashcards :**



Pay



eighty



Pail



Maple



Bake

Teachers' copy

# Worlds Apart



As the sun rises in the east it casts pink shadows on the shores of a **beach** in Florida. Along the shore of the **beach**, sea oats sway in the breeze. They look similar to a **field** of **wheat** growing in Nebraska. But with a closer look you can easily see how life, sounds, and activities in Florida and Nebraska seen world apart.

I n Nebraska, you may hear the loud **scream** of the blades of a **steel** plow and combine engines in the air. The constant singing of the grasshopper, **beetle**, and cricket can also be heard .

Many farms in Nebraska **yield** huge crops of grains. The people that harvest these grains often wear **jeans** while working in the wheat **fields**.

In Florida, the waves crashing on the shore and the squawking seagulls are the sound that can be heard. Salt water, a coral **reef**, and **seaweed** are common sights in this state with water on **three** sides. Sunbathers wear **sleek** an swimsuits and **grease** their skin with sunscreen.

As you can **see each** place offers something different.

Students' copy

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Teachers ' copy

# Helen Keller



When Helen Keller was only 1 ½ years old, she became very sick.

The **type** of illness Helen had left her both deaf and **blind**.

Her world was now quiet and dark as **midnight**.

Helen's father tried to **find** someone to help his daughter speak with others.

Anne Sullivan came to teach Helen.

She was like a **knight** in shining armor for Helen. At first, made only **slight** headway. In **spite** of the challenge, Anne refused to sit idle and do nothing.

Anne's **style** of teaching was much different from other teachers. She taught Helen to write by tracing letters into the palm of Helen's hand with her fingers. Eventually, Helen could spell words and connect these words with objects. To Helen, Anne was like a **lighthouse** that guides ships to shore.

When Helen finally learned to read and speak, she took a plane **flight** to other continents to teach other blind and deaf people. The **grind** of the airplane engine excited her. Every **mile** she traveled was to help more people. Although she had a calm, or **mild**, way of teaching, Helen Keller touched people's lives in a powerful, or **mighty**, way.

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## Nursery rhyme

Dad gave me an apple seed.



Then he pulled up a weed.



But he did not see the bee.



Ouch! It really hurts a bee sting.



## HANDOUT

Complete the chart with the number of sounds each word has.



FREIGHT

\_\_\_\_\_



MALE

\_\_\_\_\_



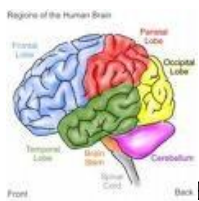
FRAME

\_\_\_\_\_



BACON

\_\_\_\_\_



BRAIN

\_\_\_\_\_

